

PART I - SECTION C

STATEMENT OF WORK

C.1 INTRODUCTION AND BACKGROUND

The Bandwidth Manager (BWM) is an FAA-wide system providing the National Airspace System (NAS) with circuit and network connectivity for routine, essential, and critical telecommunications requirements. The BWM is based on use of the Promina product line of equipment manufactured by Network Equipment Technologies (NET). The Promina product line not only includes nodes and all feature cards but also NetMS monitoring equipment. The BWM equipment is FAA-owned, operated, and maintained. The FAA has a requirement for engineering and technical support services to assist FAA personnel in performance of operation, management, monitoring, and maintenance of the BWM.

C.2 SCOPE

The scope of this contract includes engineering and technical support services, hardware and software maintenance, equipment repair, and training services.

C.3 REQUIREMENTS

C.3.1 GENERAL REQUIREMENTS

The Contractor shall provide all personnel, equipment and facilities to meet the requirements specified herein. Personnel shall be highly qualified, trained and experienced on Promina equipment, have expertise in related hardware and software systems, network management, engineering, installation, implementation, requirements processing, network operations, diagnostics and trouble resolution and be skilled in providing technical training.

C.3.2 SPECIFIC REQUIREMENTS

C.3.2.1 Technical Assistance Center (TAC) Support:

C.3.2.1.1 The Contractor shall provide technical assistance to the FAA and be available on a 24 hour a day, 7 day per week, 365 day per year basis. This support includes all FAA-owned BWM site equipment listed in Attachment J-1 and any future equipment/sites the FAA identifies. The TAC shall have a toll free telephone number for telephone access and be capable of performing remote equipment access (via dial line) for diagnostics. The TAC shall also have the capability to troubleshoot problems offline to support more in depth analysis. The TAC must log the reported problems in a trouble ticket database, coordinate with the FAA originator, determine the nature of the problem, and assist in the identification of corrective action. The Contractor shall maintain an archive of trouble tickets, valid alarms, and corrective actions for later review by the FAA. TAC support shall also include software downloads via online customer access.

C.3.2.1.2 TAC Operations

- a. The FAA monitors and manages the BWM equipment from the following FAA locations: two Network Enterprise Management Centers (NEMC), the Interfacility Communications Engineering Team (IFCET), the Potomac Consolidated TRACON (PCT) Systems Operations Center (SOC), and the BWM Operations Team. In those cases where a problem cannot be resolved by the FAA at one of the above locations, the Contractor shall provide TAC support remotely from their facility to FAA engineering support personnel.
- b. The TAC shall take incoming calls from either NEMC, the IFCET, the PCT SOC, or the BWM Operations Team. The TAC shall open a trouble ticket in a trouble ticket database, and will coordinate with FAA on-site personnel to determine the nature of the problem.
- c. In addition, the TAC shall:
 1. Maintain the capability for FAA engineering support personnel to remotely enter trouble tickets into the trouble ticket database.
 2. Monitor the trouble ticket database for entries by FAA personnel
 3. Remotely diagnose failures and maintain a trouble ticket on the failure
 4. When remote access is necessary the TAC shall request FAA approval to dial into the network. The minimum dial-in data rate is 9.6kbps at the FAA network access point.
 5. Download software upgrades on the FAA's Promina equipment listed in Attachment J-1 on a mutually agreed to schedule. In the event a software version has reached its "end of life" in terms of supportability, the Contractor shall continue to support that software version until the FAA has completed its test and acceptance process for the latest version of that software.
- d. Priority of Calls: When a problem arises that requires TAC assistance, the Contractor shall respond based on the criticality of the problem. For problems defined as critical, the TAC shall respond within an hour. A critical problem involves emergency situations in which the equipment is not usable, produces incorrect results, loses information or data, or fails catastrophically and renders the end-users down interfering with FAA operational services.. The Contractor shall define all other response levels and times to be used by the FAA when obtaining TAC support. When the TAC is unable to correct a problem, the FAA may request escalation outside of the TAC as mutually agreed. Once agreed, the TAC shall escalate to the Original Equipment Manufacturer (OEM) for further analysis.

C.3.2.1.3 TAC Support Levels - The contractor shall provide two levels of TAC support, Basic and Reduced. Should the Contractor require nodes to be certified to be in good operating condition, the Contractor will do so with the assumption that all nodes are either under warranty or have been under the Contractor's or Contractor's designated representative's maintenance continuously since the warranty period. Further, the FAA may periodically attempt maintenance to restore services without agreement from the Contractor at no penalty to the FAA.

Basic Level - The Basic Level of TAC support assumes a nominal level of capability by FAA personnel to perform self-service repairs to the equipment. This level would include all debugging functions whether related to hardware and software design, bugs, and upgrade or to configuration, operational service, troubleshooting, monitoring and maintenance, crash evaluation, correction of routine issues, and node health and scrubbing. This level also includes providing software downloads for operating and feature code including NetMS and maintenance releases and patches for critical bugs.

Reduced Level - The Reduced Level of TAC support requires an advanced level of capability by FAA personnel to perform self-service repairs to the equipment. Additionally, this level of support requires that FAA personnel be certified by the Contractor. This level would consist only of debugging hardware and software design, bugs, and upgrade issues and would include limited access to any other TAC functions or support. This level also includes providing software downloads for operating and feature code including NetMS and maintenance releases and patches for critical bugs.

In coordination with the FAA, the Contractor shall define the criteria and requirements necessary to determine an acceptable level of FAA staff capability required to order the Reduced Level of support. Additionally, in coordination with the FAA, the Contractor shall identify the number of certified FAA personnel that must be at a location in order to receive the reduced level of support.

On a quarterly basis, the FAA will update the nodes requiring TAC support listed in Attachment J-1.

C.4.2 Program Management

The Contractor shall establish a program management capability at their own premises to support and manage the delivery of services throughout the life of the contract. The Contractor must ensure that sufficient resources are available to provide the services required by the FAA. To ensure compliance with all requirements of the contract, the Contractor is responsible for the management and control of all personnel assigned to the contract including subcontractors/team members to ensure compliance with all requirements of this contract.

The Contractor must coordinate with the FAA on the plans and schedule to resolve programmatic or contractual issues. In the course of resolving issues, the Contractor must adhere to the schedule agreed upon by FAA and must advise the FAA on the status of the issue resolution.

Program Management support must also be provided outside of normal business hours as required to address the management escalation of critical issues.

Contractor personnel shall participate in technical and programmatic meetings with FAA representatives as requested and mutually agreed.

The Contractor shall provide ad-hoc technical reports and analyses as mutually agreed upon between the FAA and the Contractor.

C.4.3 Equipment Repair, Refurbishment and Upgrade

Under the Basic level of maintenance, the Contractor shall be responsible for repair, refurbishment, or upgrade of Promina and other NET equipment that is part of the BWM network, as required by the FAA.

Equipment repair, refurbishment, or upgrade under the Reduced level of maintenance will be determined by mutual agreement between the FAA and the Contractor.

C.4.4 Training

C.4.4.1 Training Courses

The Contractor shall provide training in the following courses to FAA-designated personnel. The contractor shall provide the FAA a synopsis for each course offered.

- a. FAA-Unique Promina P800 Series Operations and Maintenance of NET Federal, Inc. equipment. This course shall be 40 hours in length.
- b. Network Management System for Administrators of Net Federal, Inc.'s NetMs. This course shall be 24 hours in length.
- c. Network Management System for Users of Net Federal, Inc.s' NetMs. This course shall be 8 hours in length.
- d. Promina P800 Series Training for LWX Feature Cards of NET Federal, Inc. equipment. This course shall be 16 hours in length.
- e. Promina P800 Series Training for PrimeSwitch Feature Cards of NET Federal, Inc. equipment. This course shall be 16 hours in length.
- f. Promina P800 Series Debugger for NET Federal, Inc. equipment. This course shall be 32 hours in length.
- g. NOC (Network Operations Center) Operations OJT (On the Job Training) – Live Ops Consultancy Service. This course shall be 40 hours in length. The course will only be available onsite at the FAA's NEMC or second level support facility.
- h. NOC Advanced Operations OJT – Live Ops Consultancy Service. This course shall be 40 hours in length. The course will only be available onsite at the FAA's NEMC or second level support facility.

- i. Basic Promina P800 Series Operations Overview for Field Personnel for NET Federal, Inc. equipment. This course shall be 8 hours in length.
- j. The Contractor shall also provide a list of other relevant courses to the FAA, available through the contract that may benefit FAA personnel. Courses may be Contractor-unique or from other training vendors. The Contractor shall update the list over the life of the contract as courses are added and dropped from availability.

C.4.4.2 Special Requirements for Training Courses

Special requirements for training courses are as follows:

- a. The FAA shall assign FAA course numbers to each class with an individual CLIN. On an annual basis, the FAA will identify the number of students for each course, by FAA course number and communicate those requirements to the Contractor.
- b. These courses are to be available at the Contractor's facility or, at the option of the FAA, at designated FAA sites and shall be offered either by student or by class with a specified number of students. Scheduling shall be mutually agreed upon by the FAA and the Contractor.
- c. The FAA will notify the Contractor at least seventy-two (72) hours before the scheduled training date, if a student will be unable to attend training. The FAA will notify the Contractor in the event of cancellation or rescheduling at least (5) business days before a class at the Contractor's facility, and ten (10) business days before a class at a FAA site. The FAA has the option to either cancel the order or reschedule the training at no additional charge.
- d. The FAA reserves the right to substitute one student for another up to the first day of class.
- e. In the event the Contractor is unable to conduct training on the agreed upon date, the Contractor shall notify the FAA no later than ten (10) business days before the scheduled training date.
- f. The Contractor shall provide each student with course-related assistance via telephone support for a period of one (1) year from the completion of the training course.

C.4.3.3 Refresher/Attrition Training

The FAA desires to explore the feasibility of web-based, computer-based instruction (CBI), or correspondence-based equivalents to the above courses for use in refresher or attrition training. The Contractor shall work with the FAA to develop possible alternatives for this type of training. If this type of training currently exists, the

Contractor shall make this training available to the FAA and will have no minimum purchase requirement.

C.4.4.4 Certification

The Contractor shall define and provide a process for FAA personnel to obtain certification that will enable the FAA to obtain TAC support at the Reduced Level. The Contractor shall provide the process to the FAA for review and approval prior to implementation. Certification shall include levels from a basic technician or specialist competency to TAC Operator and TAC Engineer. Levels of certification shall be determined by a progression of courses as defined by the Contractor which may also include proficiency evaluations or testing to certify at each level. The certification process shall also identify requirements for maintaining the certification once obtained. Once certified, the Contractor shall recognize such certification in determining the level of support the FAA may obtain.